REMARKS

Claims 1-9 and 11-20 remain pending in the application.

Reconsideration of the rejections and allowance of the pending application in view of the foregoing amendments and following remarks are respectfully requested.

In the Office Action, claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP Publication 52-23707 (hereinafter "JP707") in view of Park (U.S. Patent No. 5,451,727). This rejection is respectfully traversed.

Independent claim 1 has been amended to more clearly define a structural feature of an embodiment and to more clearly distinguish over the applied prior art by further reciting that a gas suction passage is provided inside the piston, and the gas suction passage communicates with the slots and the through holes. In this regard, the Examiner's attention is directed to, inter alia, Figs. 2-4 of Applicants' application.

It is a disclosed object of a present embodiment to provide a reciprocating compressor that is capable of preventing a suction loss due to overheating of a reciprocating motor during operation by enhancing a suction structure for refrigerant gas.

To achieve the above-noted object, the reciprocating compressor of one disclosed embodiment, as recited in amended claim 1, includes, inter alia, a case having a gas suction pipe and a gas discharge pipe and a frame unit positioned in the case. The reciprocating compressor further includes a compression unit including a cylinder positioned at the frame unit and having a plurality of slots formed in a

longitudinal direction on an outer circumferential surface, a piston coupled with a reciprocating motor so as to linearly and reciprocally move into the cylinder and having a plurality of through holes formed at an outer side, the through holes communicating with the slots, and a compression unit having a gas muffler member positioned at an outer circumferential surface of the cylinder, as an additional member. Further, a gas suction passage is provided inside the piston, and the gas suction passage communicates with the slots and the through holes.

The primary JP707 reference cited to support the rejection does not disclose such a combination of features, particularly the gas muffler member positioned at an outer circumferential surface of the cylinder, as an additional member. Although the JP707 reference includes a discharge member 12, the discharge member is not an additional member, but a member that appears to be defined by the portions 8 and 2 thereof.

In contrast, in the presently claimed embodiment, as noted above and clearly seen in Figs. 2-4, the gas muffler member 143, positioned at an outer circumferential surface of the cylinder 141, is provided as an additional member. At least, the combination of these features is not disclosed in the JP707 reference.

The secondary Park reference cited to support the rejection also does not disclose such a combination of features, particularly the gas suction passage provided inside the piston and thus communicating with the slots and the through holes.

In contrast, in the presently claimed embodiment, as noted above and clearly seen in Figs. 2-4, the gas suction passage F is provided inside the piston 142 and communicates with the slots 141a and the through holes 142a. At least, the combination of these features is not disclosed in the Park reference.

In other words, in the presently claimed embodiment, a gas muffler 143 is installed at an outer circumferential surface of the cylinder 141, as an additional member so that one side thereof communicates with the slots 141a and the other side thereof communicates with the gas suction pipe SP, and the gas suction passage F is provided inside the piston 142. Further, a discharge valve 145 is positioned inside the discharge cover 144 and selectively opens and closes the compression chamber P, a valve spring 146 elastically supports the discharge valve 145, and a suction valve 147 is coupled at the front surface of the piston 142 and selectively opens and closes the gas suction passage F. When the piston 142 performs a gas suction operation, a gas introduced into the gas muffler member 143 through the gas suction pipe SP is introduced into the piston 142 through the slots 141a and the through holes 142a and is then introduced into the compression chamber P through the gas suction passage F. Accordingly, since the direction of the gas flowing through the slots 141a and the through holes 142a is transverse to the direction of the piston's reciprocal movement, a suction noise generated during operation is reduced. Neither JP707 nor Park, considered singly or in any proper combination, disclose the combination of the features as noted above.

Furthermore, there is no motivation to combine the JP707 with the Park, because, while the JP707 is directed to an electromagnetic reciprocation suction pump that must include the gas suction passage 33 provided inside the piston 23 for performing the gas suction operation thereof, the Park is directed to a noise suppressing apparatus for a hermetic reciprocating compressor that does not include such a gas suction passage provided inside the piston 11, as clearly noted in Fig. 2 of the Park.

Thus, there would be no reason to combine the teachings of JP707 and Park to arrive at the claimed embodiment as recited in claim 1, absent a review of applicants' disclosure and the application of impermissible hindsight.

Independent claims 11 and 20 have also been amended to further recite a gas muffler member provided as an additional member, a gas suction passage provided inside the position, and the gas suction passage communicating with the slots and the through holes.

Thus, claims 1, 11 and 20 are now believed to be in condition for allowance in view of the above-noted remarks, and claims 2-9 and 12-19 dependent thereon, respectively, are submitted to be in condition for allowance in view of their dependence from a shown to be allowable base claim and also based upon the recitation of other features of the present invention.

It is respectfully requested, therefore, that the rejection of claims 1-20 under 35 U.S.C. 103(a) be withdrawn and that an early indication of the allowance thereof be given.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
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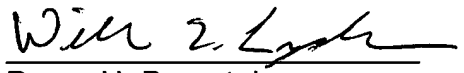

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